

IN THE CLAIMS

1. (Currently amended) Polyphase filter comprising:

at least two filters, each for filtering an input signals to produce a filtered signal at an outputs;

at least two integrators, each corresponding to one of said filters and coupled to said one of said filters -for integrating said filtered signals;

wherein an-said output of each integrator is coupled via an impedance element to at least one of an input of an adjacent integrator of said at least two integrators and an output of an adjacent integrator.

2. (Currently amended) Polyphase filter according to claim 1, wherein an output of an integrator is coupled said impedance element is via a conductance element to an input of an adjacent integrator.3. (Currently amended) Polyphase filter according to claim 2, wherein an output of an integrator is coupled via said impedance element is a capacitor to an input of an adjacent integrator.4. (Currently amended) Polyphase filter according to claim 3, wherein an-said integrator comprises an amplifier with an admittance element in a feedback path thereof.5. (Original) Polyphase filter according to claim 4, wherein a-each filter comprises a passive element and wherein an amplifier comprises an operational amplifier.6. (Original) Polyphase filter according to claim 5, wherein a-said passive element comprises a resistor and a capacitor and wherein an-said admittance element comprises a capacitor and a conductance element coupled in parallel to each other.7. (Currently amended) Polyphase filter according to claim 6, wherein said polyphase filter comprises further comprising means coupled between adjacent integrators for

performing at least one signal inversion between said adjacent integrators.

8. (Canceled)

9. (Canceled)